

KERAMIC STUDIO

Vol. VI, No. 12

SYRACUSE, NEW YORK

April 1905



THE surprise at finding so few interested in the naturalistic competition closing February 15th, and the disappointment of finding this class of work as a whole so far below the average, had almost made us decide to give up this class of competition. We have so often been given to understand, that the majority of our readers preferred the naturalistic, that we expected this problem to surpass all others in variety and merit, especially as we offered higher prizes than for the others. However, the season of the year may have been at fault so we will try once more, later. No study was found worthy of first prize. The second prize was awarded to Mrs. Emma Armstrong Ervin. Mention, Miss Mary Burnett.

The Problem for the August competition, closing June 15th, will be a conventionalized border in black and white for a fish platter, one section at least to be given in color and the design to be accompanied by a treatment in mineral colors. The platter to be 20 inches in length. Studies of fish with conventionalizations by French artists will be found in this issue. First prize, \$10.00; Second prize, \$8.00; Third prize, \$5.00.

The approaching exhibition of the New York Society of Ceramic Arts which will be held at the National Arts Club, 37 West 34th street, from April 19th to May 8th, is awakening much interest and enthusiasm. The President, Mrs. Anna B. Leonard is using every effort to make it a success beyond all former years, and all ceramic workers including the members of the society are expecting great things. The exhibition of American Pottery and Porcelain to be held in connection with it will be of unusual interest also.



THE following programme has been arranged for the twelfth annual exhibition of the National League of Mineral Painters, to be held at the Art Institute, Chicago, May 9th, 1905. The exhibition will open with an evening reception in the galleries of the Institute.

WEDNESDAY, MAY 10TH

10:30 A. M.—Business Meeting.

2:30 P. M.—Address of welcome by Director Wm. R. French of the Art Institute. Miss Mary Chase Perry, Detroit.

THURSDAY MAY 11TH

10:30 A. M.—Election of Officers.

2:30 P. M.—Address by Louis J. Millett of the Art Institute. Mr. W. D. Gates, American Terra Cotta and Ceramic Co.

There will be many other attractive features added to this programme for the entertainment of all who may visit the exhibition, the details of which have not been completed. We hope to have all members of the League who can possibly arrange to visit Chicago during this time, to do so, as we cherish many happy reminiscences of the hearty response from all clubs from California to New York during the exhibition of 1899.

We have secured space in the Lewis & Clark Centennial Exposition at Portland, Oregon, in the Fine Arts Building—if erected—if not, our exhibit will be in the Liberal Arts Building. We have all arrangements made for cases and have been fortunate in securing the assistance of Mrs. Parish in looking after our exhibit whilst there, so that all exhibits will be given the best of care in placing, arranging and packing after the exhibition is over. Mrs. Parish is the newly elected President of the Oregon Club.

I hope to have a letter in a day or two giving more details as regards plans, arrangements, etc., and would ask all members to send at least a few pieces that we may make a creditable showing and I am sure whoever will make the effort will feel more than repaid by the appreciation of the Western artists and visitors to the Exposition.

NELLIE A. CROSS, *Chairman.*

Exhibition N. S. M. P.

1217 Farwell Ave., Rogers Park, Chicago, Ill.

The annual meeting of the National League of Mineral Painters will be held in Fullerton Hall, The Art Institute, Chicago, on Wednesday and Thursday, May 10th and 11th, 1905.

We wish every affiliated club would be represented by a delegate, prepared to give a recital of their failures and successes during the past year. These deputies would then enter into the spirit of affairs with more enthusiasm, carry home the very essence of the meeting, and thus rouse greater interest for next year's study course.

There will be the election of Advisory Board members, and the discussion of the duties, privileges, expenses, etc., of individual members, proxies, the Comparative Travelling exhibition, and judges, and such other matters as will aid the Board and chairmen of committees in furthering the interests of the League.

We call especial attention to the above questions that have become an unwritten law through usage, and desire to add them to the constitution if it is the pleasure of the convention.

BELLE BARNETT VESSEY,

President

Grace P. McMurtry, Cor. Secretary.

Lulu C. Bergen, Chairman Transportation,
7404 Harvard Avenue, Chicago, Ill.

THE BEGINNER IN CONVENTIONAL WORK

MANY beginners feel at loss in starting a conventional design. What to do first?—what next? is a constant inquiry.

DRAWING THE DESIGN

First you need a plate divider, such as is sold by KERAMIC STUDIO for ten cents, then a sheet of drawing paper and another of tracing paper, a bottle of Higgins' India ink, and an India ink pen, a medium soft pencil and your china painting outfit. If you wish to copy a design directly, if you wish to repeat a plate design, for instance, just as it is, on another plate, the problem is a simple one. Make a tracing with your soft pencil, of a section of the plate, one repeat. If it is a balanced design, *i. e.*, the same forms reversed on either side of the central motif, it will not be necessary to blacken the lines on the reverse side, otherwise go over the tracing with a pencil on the reverse side. Moisten a rag with a little old spirits of turpentine, some that has thickened a little with standing, or else put a drop of fat oil on the rag with the ordinary spirits of turpentine, rub this thoroughly all over the plate or border then wipe off so that it shows no smears. Let this dry a few minutes or warm a little on a stove or alcohol lamp; lay the plate, face down, on the plate divider, fitting it to one of the circles, then with your pen and ink mark the divisions 3, 5, 6, as the case may be. Turn over the plate and repeat the mark on the face. This gives the point from which to trace each section, so as to evenly distribute the design. Lay your tracing, face down, on the plate, go over the outline with your pencil or a hard point of some kind. The design will be found lightly traced in pencil on the plate. Take your pen and ink and go over the design carefully making a fine outline and correcting the tracing where it may have slipped. Then trace the remaining sections, one at a time until the whole border is drawn. If the plate should be a little larger or smaller than the original copy, the design will have to be lengthened or shortened where the sections meet. If the design is a balanced one, the tracing can be used first on one side, then on the other; if the motif is simply repeated without reversing the tracing may have to be gone over again with a pencil on the wrong side. The drawing being completed the design is ready for painting. If, however, a tinting has first been made over the entire plate and fired before putting on the design, a softer and more harmonious effect will be gained.

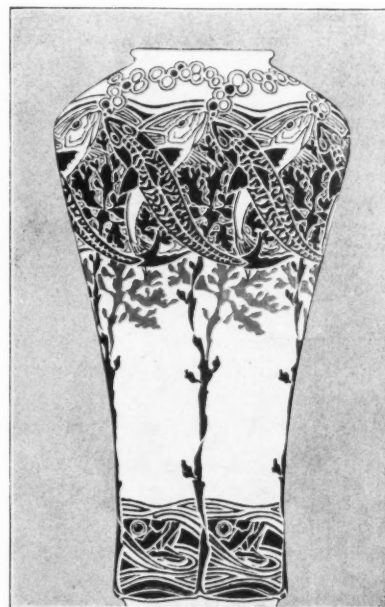
If a plate design, however, is to be applied to a cup and saucer or vice versa, a more difficult problem is to be met. Place the cup on a circle of the plate divider, opening downward and mark on the rim the divisions desired. If the plate border is too wide for good proportions on a cup and saucer take your drawing paper and measure a straight band of the width desired and the same in length as the circumference of the cup, divide this as you have divided the cup into 3, 4, 5, 8, etc. sections. In one of these sections draw the same design as the one to be copied, reducing it in size and arranging it to fit the straight section instead of a curve. Then make a tracing of this and apply to cup as directed before. An aid to arranging a curved design on a straight border or vice versa, is to draw a line through the center of both straight and curved border from end to end as well as from top to bottom, and see that in the applied copy, the different parts of the design touch the lines at approximately the same points. Then the process will have to be reversed in applying cup design to the saucer. The saucer design will of course, be of the same width as that of the cup, the only problem is to fit the cup section to the saucer; lay the saucer on the plate divider and decide which division will be nearest in length to

the measurement of a section of the cup border, then proceed as in directions for designing a plate, curving the design of the cup border and lengthening or shortening the design where the sections meet. Sometimes a little portion of the design may have to be omitted or something added to fill the space or make connection. All lines which are vertical on the cup should run at right angles to edge of saucer or slate, making a line which if continued would strike the center of the circle. A good idea in adapting a cup section to saucer or plate or vice versa, is to draw a number of these vertical lines through the sections to be adapted and see that the parts of design touching these correspond; the change will generally have to be made in the lower half of the design rather than the upper as a curved panel is shorter at the bottom than at the top. Of course if you are expert in drawing, these helps may be omitted. There are some designs which will be found more difficult of adaptation and in a general article it is impossible to meet these emergencies; the only advice possible is to use at first only the designs which are easily adapted and as you become more expert you will find the more difficult problems easier to solve.

EXECUTING THE DESIGN IN COLOR

There are many styles of conventional design, more or less elaborate and requiring different materials and different handling. We will start with the simplest, a design in one color. The design being already drawn, the next thing is to fill it in with color. If flat enamel is desired, the tube Aufsetzweiss is mixed with $\frac{1}{2}$ of whatever color is desired, to this mixture then add $\frac{1}{4}$ flux. Thin this with spirits of turpentine for small spaces or oil of lavender for large washes; if color alone is used, add to it $\frac{1}{4}$ flux and treat in the same manner as enamel. Use a square shader as large as can be conveniently handled, the larger the better as less brush marks will show—charge the brush off with color and the enamel mixture and let it flow off the brush as much as possible; when too little color is in the brush, the brush marks will show more.

[TO BE CONTINUED]



MACKEREL DESIGN FOR VASE—LASERRE FROM "ART ET DECORATION"



CARNATIONS—F. B. AULICH

THE prominent carnations in this study should be painted in Rose; the dark ones in American Beauty and Crimson Purple. For the background use Blue Green, Blue Violet and some American Beauty for the distant ones. Paint background first, then the flowers, lifting out the high light with a pointed shader.



Brown Banko Teapot of fine quality, flowers inlaid in translucent enamel, revolving knob. Five ordinary Banko teapots.

BANKO WARE.

THE Japanese cannot understand the partiality of Europeans and Americans for the overgilded, overdecorated porcelains of their country, and their entire disregard and neglect of banko pottery. To be esteemed by the Japanese connoisseur, Satsuma (for example) must show a fine and even crackle on its old-ivory-like surface, and little more in the way of decoration (if any at all) than a crest; but the foreign buyer demands Satsuma with the surface completely hidden under many colored pastes and gorgeous with much gilding. Except as something astonishingly cheap, banko is to him unknown. The possibility now is that very little good banko (outside of the museums) will ever be seen again, as the owners of the banko potteries in Japan are among the leading commercial spirits of the country, and apparently careless of everything except to fill their enormous orders for the foreign trade as quickly and as cheaply as possible.

Banko has always been almost ignored by foreign collectors. Bowes speaks of it but only slightly; yet Miss Denton of Kyoto asserts that an appreciation of banko in Dai Nippon is an open sesame to the innermost circle of the elect, as it is held that only the born lover of ceramics can properly appreciate the charm and the art of this quaint pottery.

It is not made of any rare kaolin, but of humble, common clay, and it has almost no intrinsic value, merely a great artistic one. But in a country like Old Japan intrinsic value was not paramount, the artistic possibility was enough, and simplicity was a quality which was worshiped. The artist-potter would take a sheet of the beautifully pliable (yet tough) banko-clay and fashion a tea-pot, a plaque, a vase, or a bottle with his thumb and finger, using no wheel at all, and sometimes not even a spatula. He would mould and press and manipulate at will perhaps two pennysworth of clay, and "behold a piece worth the ransom of a great warrior!" Obviously, a good piece of banko cannot be devoid of the personal element, of the absorbed interest and the intelligent personality of the worker, which is so great a charm in any of the arts.

The banko potter once took care that all finger-prints and indentations of the thumb-nail (necessarily made as he fashioned the object, with many pittings and pinchings, from the responsive clay) were not obliterated. There is no doubt as to the charm added by these, yet there were many others, particularly when the objects were tea-pots.

Some were of the thinness of paper, the handles hollow, with exquisite patterns perforated in them, and perfectly form-

ed rings jingling from the top; and then the knobs on the lids turned round and round in their hidden sockets in such a fascinating, unexplainable way. Oh! the little banko tea-pots of fifteen and more years ago! Where are they now? And shall we never see any more like them? They were unglazed, dark brown, or dull red, or stone gray or lilac, or white, or buff, and they came in all sizes that were dainty, and in all forms that were surprising and admirable; furthermore, they were not always expensive.

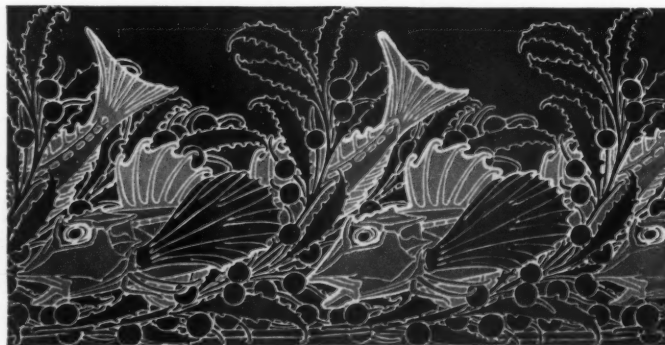
But they were always beautifully made little things, with never a trace of this sad haste of to-day. The favorite decoration was a flight of storks in white enamel, or falling maple leaves in autumn colors, or many seals imprinted in the biscuit, which meant, "May you live ten thousand years," "A thousand autumns," or some other equally polite wish for a long life.

The ware takes its name from the seal originally stamped upon it, the literal translation of the seal being, "Ancient ten-thousand." On a tea-pot in the writer's collection, a tea-pot with the capacity of just four thimbles, this seal is repeated ten times. The seal of the pottery also appears, and heightens the decorative effect.

The most common product of the potteries until within a few years has been tea-pots, but now (such strict attention does the new, commercial Japan pay to the requirements of the foreign markets) every tea-pot is accompanied by a cream-pitcher and a sugar-bowl. Frequently (too frequently) these are made of very cleverly marbled clay, bedight with cheap gilt, but they have little twisted handles of wistaria stems that are charming; yet, because they were not understood and valued, these new banko pieces show never a thumb-mark or seal, and the decorations are so weak as to be an affront to the taste of the American people.

One of the most charming specimens of Ko-banko ever imported to America was an ancient brown plaque (about twelve inches in diameter), covered on the upper side with a gem-like glaze of jade-green, and decorated with a flight of storks. The American owner refused many desperate offers from Japanese banko-lovers, but finally sold it for \$750. All banko is not Ko-banko ("the honorable antique"), but one would be satisfied could he occasionally find a really good modern bit.

The brown banko, if without potter's marks, is apt to be confused with Bizen, yet Bizen is the hardest ware made in Japan, sometimes being subjected to heat for thirty consecutive days. It is as frail in appearance as banko, nevertheless, and quite as light. The chief distinguishing mark of Bizen is that the decoration is usually incised. Small, undecorated pieces of the dull red Tokonabe ware are frequently sold for banko, but Tokonabe is a heavier ware, and the pieces are always shaped on the wheel.—*From The House Beautiful, by Olive Perceval.*



PERCH, BORDER—M. P. VERNEUIL FROM "ART ET DECORATION"



CHILD'S BREAD AND MILK SET—SABELLA RANDOLPH

JOSS FLOWERS OR CHINESE LILIES

Maud E. Hulbert

THESE flowers, though no doubt narcissus, are called in the West either "Joss Flowers" or "Chinese Lilies," because they are imported by the Chinamen for the altars they erect on their New Year's day. They grow quantities of them in shallow pools filled with stones; the bulb rests on the stones. It is considered very lucky to have the flowers double and very unfortunate if they do not blossom by New Year's day.

The flower is white with yellow in the center. Use Deep Blue Green, Brown Green, Warm Grey, Lemon Yellow and a little Orange Red. The leaves are a blueish green, use Moss Green J., Brown Green, Deep Blue Green, Yellow Green and Shading Green.

Copenhagen Blue would be a good ground for a vase or any tall piece having the leaves coming out of a very dark blue at the bottom, and Copenhagen Grey for the ground at the top.



VASE—EDITH ALMA ROSS



JONQUIL DESIGN

Mary Burnett

FLOWERS, yellow, pale in high lights, touched with deeper yellow and shaded with green and brown tones. Leaves, green and in high lights quite blue green. Background, rich warm tones of dark brown, tinged with red and green. Rim of gold at the top.



JONQUIL DESIGN

Emma A. Ervin

THE jonquil is very yellow, the cup being quite a bit darker than the outer petals. Shade the deep center with Dark Green. The background is shaded from warm grey into Grey Green and the leaves carry the same colors with touches of Dark Green.



CARP, BORDER—M. SEGUY
FROM "ART ET DECORATION"



RECEPTION HALL NEWCOMB COLLEGE POTTERY

LOUISIANA PURCHASE EXPOSITION CERAMICS

(CONTINUED)

NEWCOMB COLLEGE

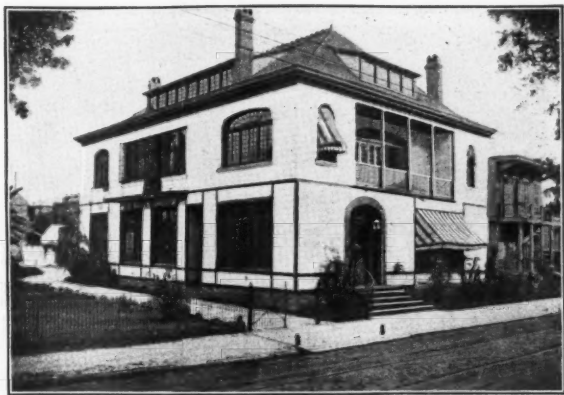
The Newcomb Pottery exhibit in the Fine Arts building was of good size and of usual simple shapes and conventional decorations with the familiar greens, greys, yellows and blues with a bright glaze, although a few interesting metallic effects were shown by Joseph Meyers. The decorators represented were the teacher Mary Scherer and of the pupils, Hattie Joor, Marie Hoa Le Blanc, who received a bronze medal, Roberta

Kennon, Ada Lonegan, Leona Nicholson, Amelie Roman, Mazie Ryan and Sabina Wells. To Miss Scherer is due much praise for the high average of design work, and to the potter, Mr. Meyers, for the shapes and glazes.

The medal received by Miss Le Blanc is an unusual recognition of merit, being selected from a number of exhibitors in the same class. It must be understood that these medals awarded by the jury of the Art Palace are of more importance as a recognition of artistic merit, than any medal given in the more commercial exhibits in the Liberal Arts.



NEWCOMB POTTERY



NEWCOMB COLLEGE POTTERY

PERKINS POTTERY

The work of Mrs. Perkins and her daughter Lucy F. Perkins was well represented by their hand-built and modeled pottery with its black or brownish polished surface. We regret not to have an illustration of this interesting work, nor of the work of Caroline Rimmer who exhibited a modeled terra cotta vase with sculptured figures. Miss Perkins received a bronze medal.

MERCER POTTERY

One of the most interesting exhibits in the Crafts department of the Fine Arts building was the work of Mr. Henry C. Mercer, of Doylestown, Pa., to whom a Grand Prize was awarded, one of the few awards that appears to have been given for unusual merit. We much regret that we were unable to obtain photographs of this work which consisted of many cases of set tiles showing various designs, colors and arrangements for floor, wall and fire place uses. The body is of coarse pottery, the glaze and colors of a rather crude majolica effect or of a brick finish but just suited to the quaint mediaeval designs rudely carved and irregular in effect. We can conceive of nothing more interesting for a big open fire place or nothing more comfortable to live with. Mr. Mercer exhibited beside some mugs, sconces and boxes, but the tiles were by far the most worthy of note.

DEDHAM WARE

Hugh Robertson, of Dedham, Mass., showed in the Art Palace a loan collection of about ninety pieces of his flambé vases and Dedham crackled plates in blue and white. For this collection he received a grand prize, which seems to be



SABINA WELLS

MARIE LE BLANC

HENRIETTA BAILEY

NEWCOMB POTTERY

given more for number than artistic merit, for while interesting in a way, the vases are not to be considered as beautiful or works of art, although the Dedham plates have beyond a doubt rare value in color and design.

MERRIMAC POTTERY

The Merrimac pottery was represented by a large number of pieces in mat greens, black, yellow, blue and grey, beside the red terra cottas after Arrehetian models—which were pressed in the ancient moulds in the possession of the Boston Museum. Mr. Nickerson received a silver medal at St. Louis.

POILLION POTTERY

The Poillion Pottery was represented in the Art Palace by a vase by Joseph Insko and a jardiniere by T. H. Pond—odd effects never repeated, freaks of the kiln as they are called.

ALFRED SCHOOL OF CLAY WORKING

The Alfred School was largely represented, both by the work of Professor Charles Binns and that of several of the pupils of the school—for this exhibit Professor Binns received a silver medal at St. Louis. The glazes were among the most interesting shown, both the simple mat and the craquelé or alligator skin effect being represented. The colors and textures were very interesting and varied and the shapes were simple and good. The ware is a pottery body fired at cone 1. Among the pupils represented in the Fine Arts building were Arthur Baggs, Bessie Burdick, Sabella Randolph and Fred Walrath who received a bronze medal.

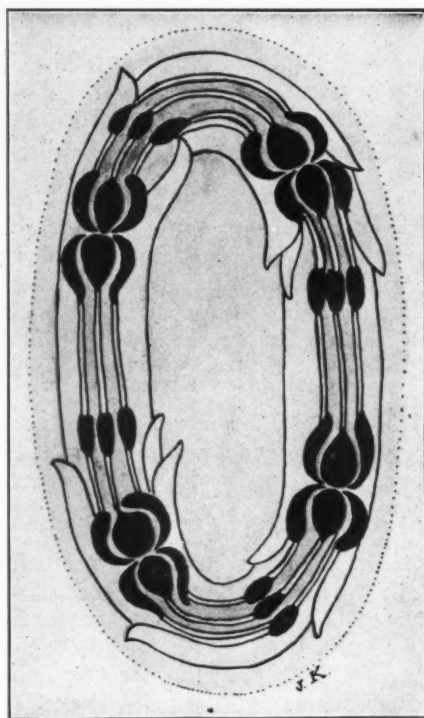


ALFRED SCHOOL POTTERY

CHRYSANTHEMUMS (Supplement)

F. B. Aulich

PUT in background first in Blue Violet, American Beauty and some Greens. The centre flower and the one on the left are painted in Rosa shaded with American Beauty, Albert's Yellow for the centre. The distant petals are toned down with Turquoise Blue. Use Blue Violet for the right upper hand chrysanthemums. Take out the lights with the pointed digger. For the second fire give another general wash taking out the high lights again and then put in the accents with the pointed brush I call stemmer because I use the same for stems. When almost dry powder with colors used before in painting.,

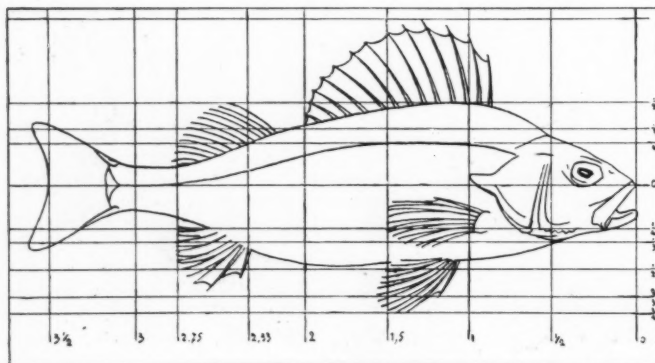


BRUSH BACK

BRUSH AND MIRROR BACKS

Jeannette Kimball

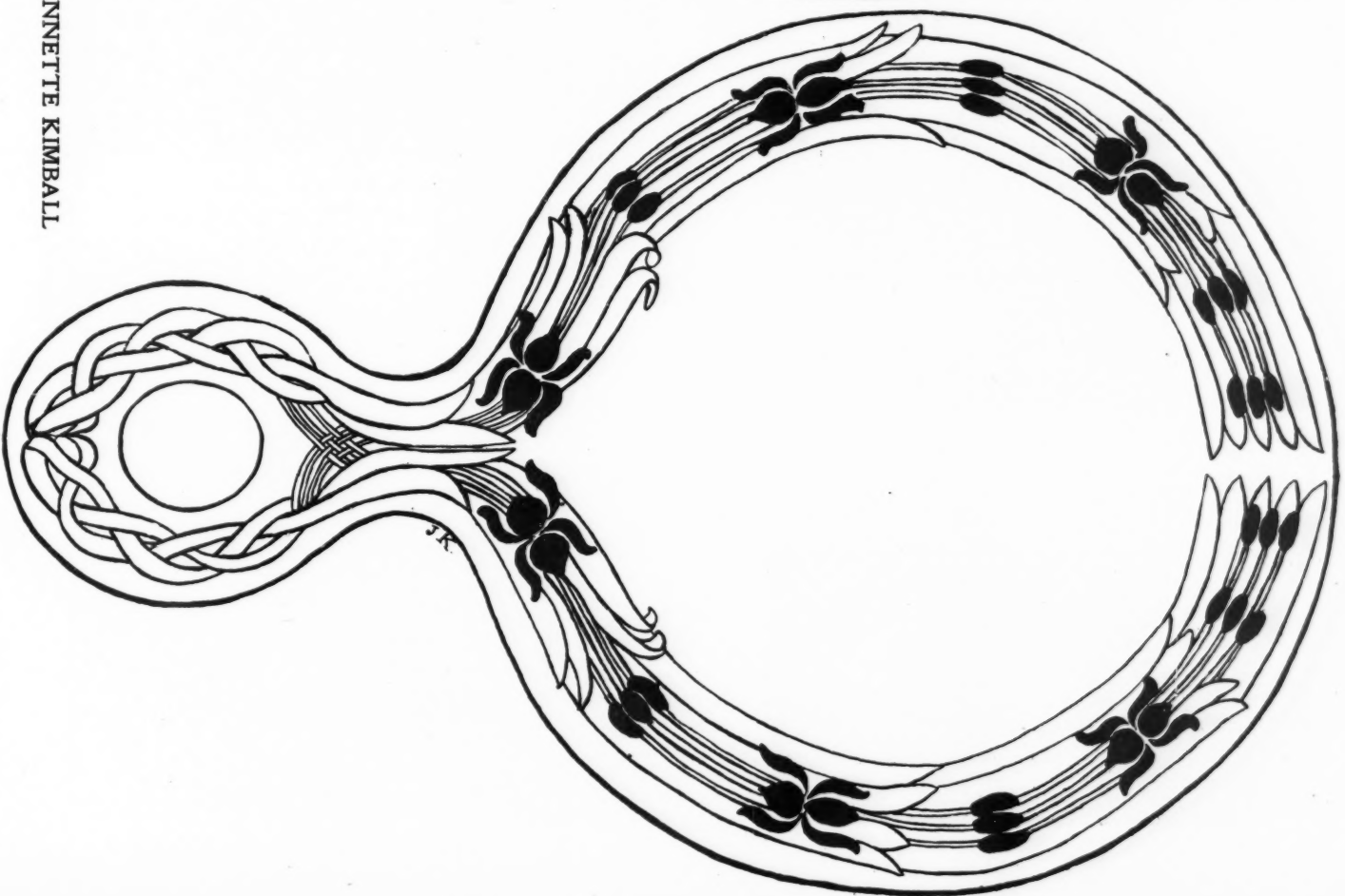
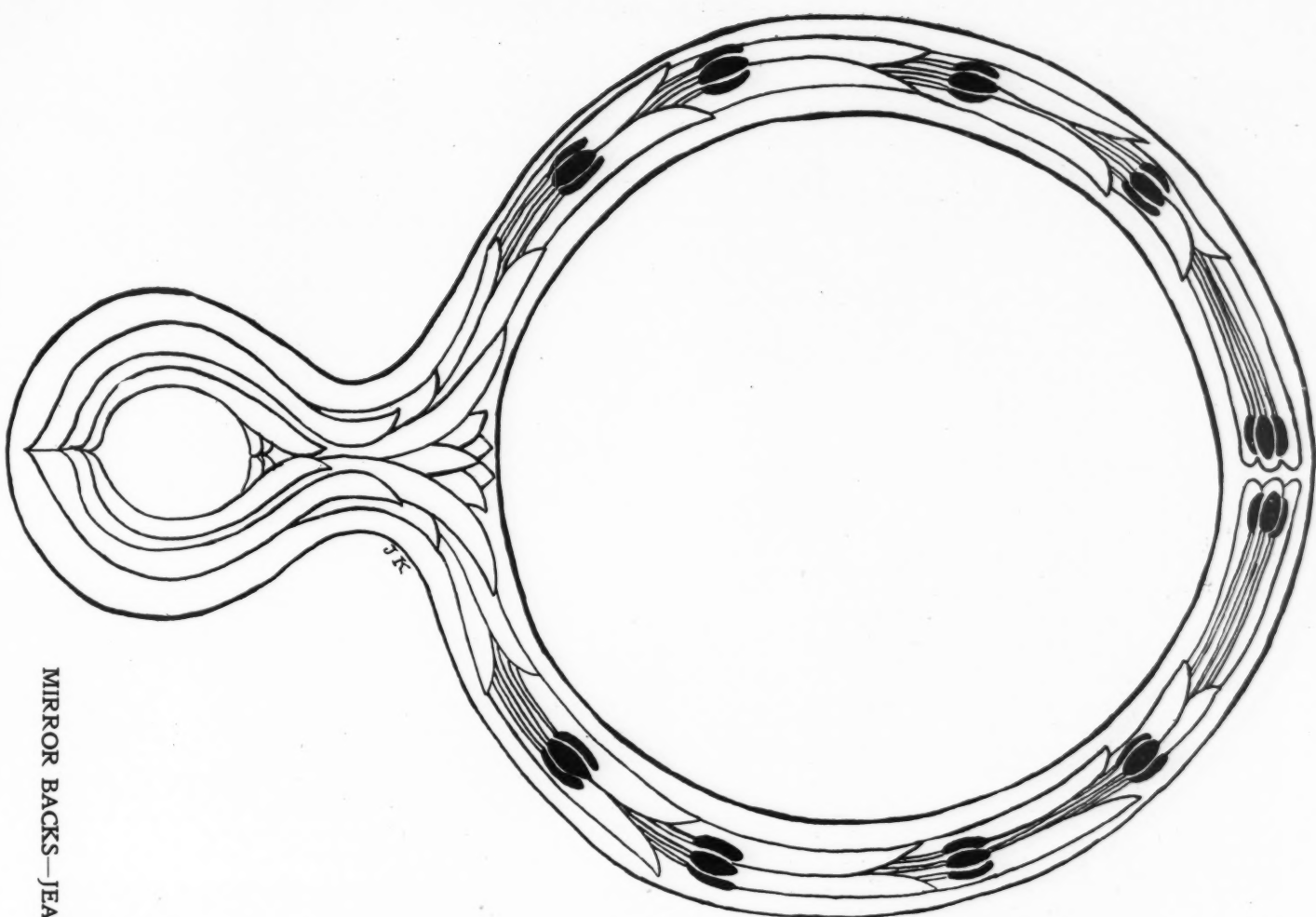
These designs for Brush back, mirror and military or clothes brush are to be executed in grey green and dull pinks, outlined in gold on a cream tinted ground.



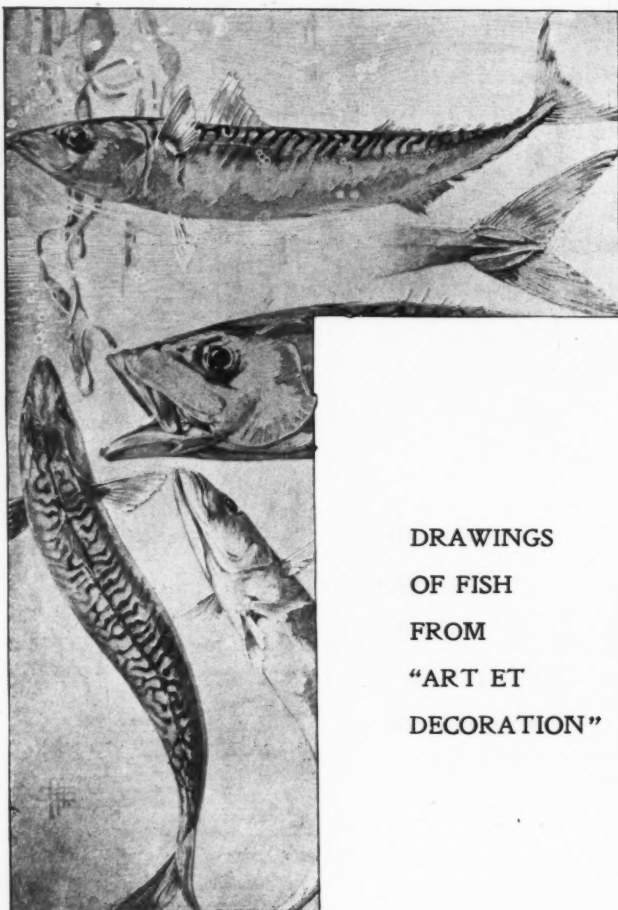
MARY BURNETT



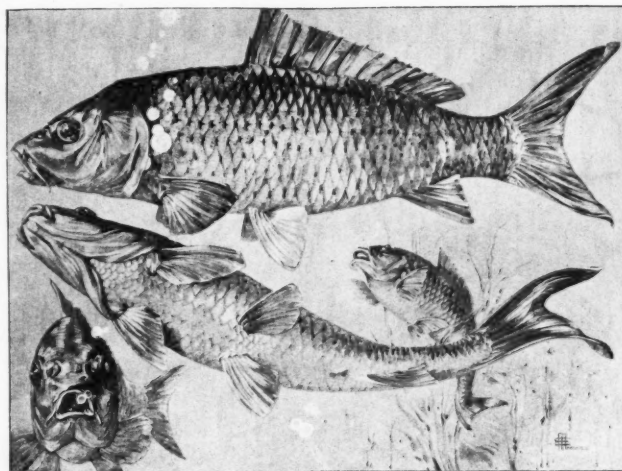
EMMA A. ERVIN



MIRROR BACKS—JEANNETTE KIMBALL

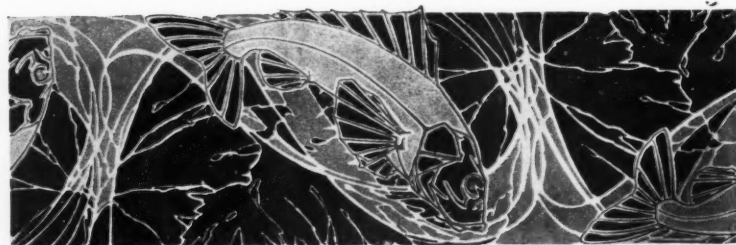


MACKEREL—M. MEHEUT

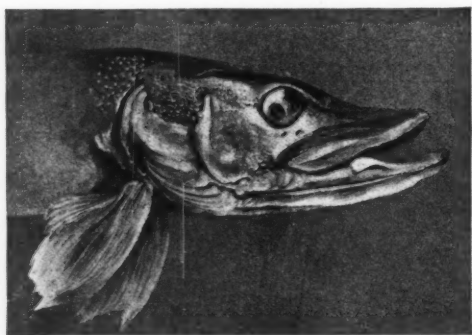


CARP—M. MEHEUT

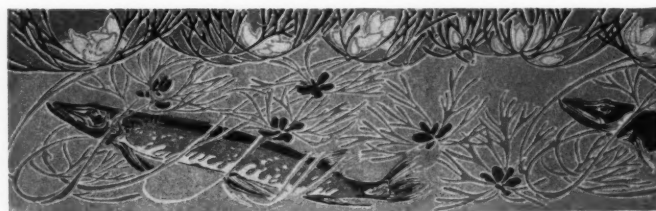
DRAWINGS
OF FISH
FROM
"ART ET
DECORATION"



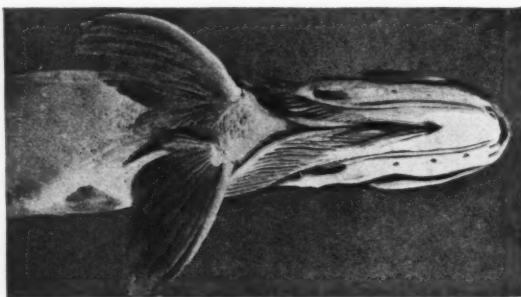
CARP, BORDER—M. SEGUY



PICKEREL—M. BACART



PICKEREL, BORDER—M. BACART

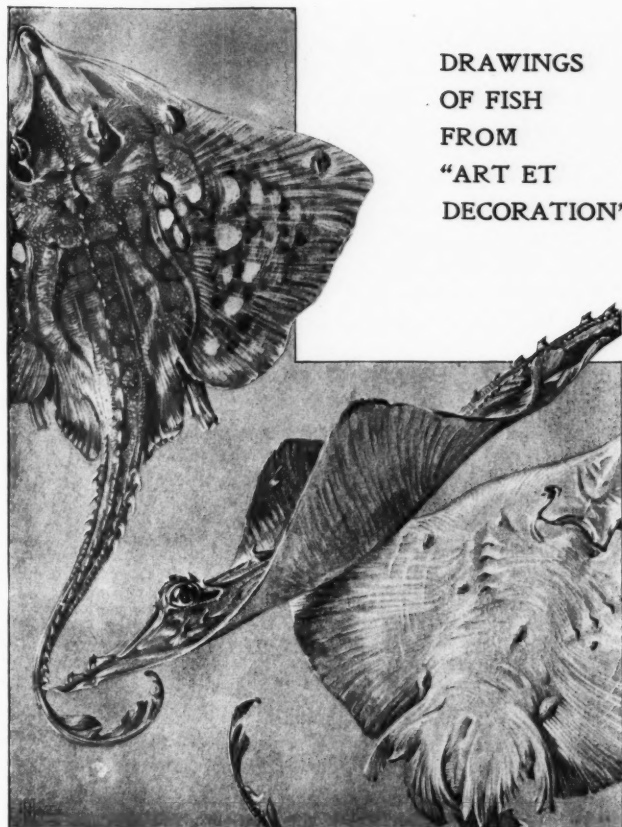


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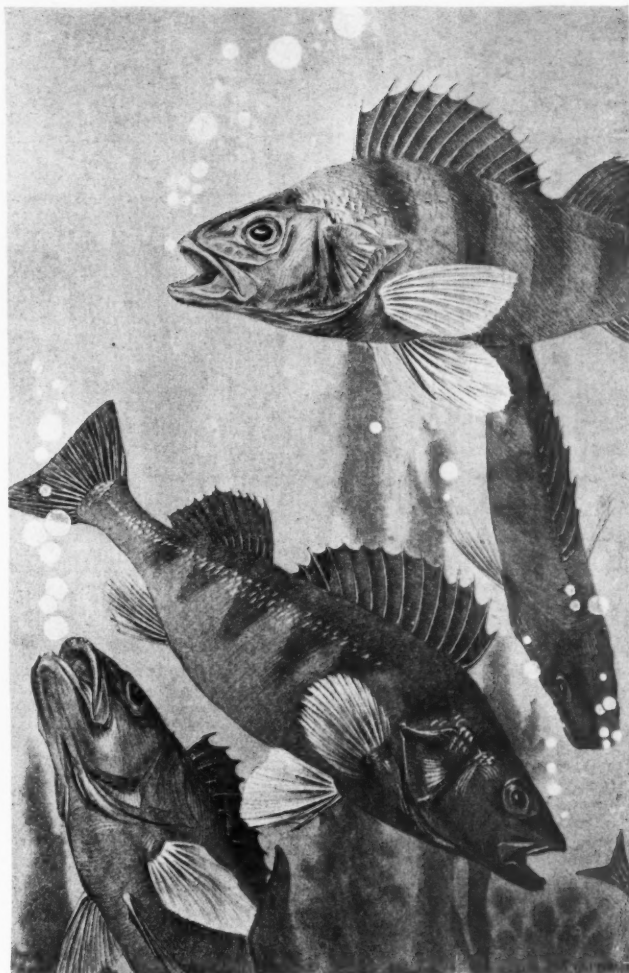


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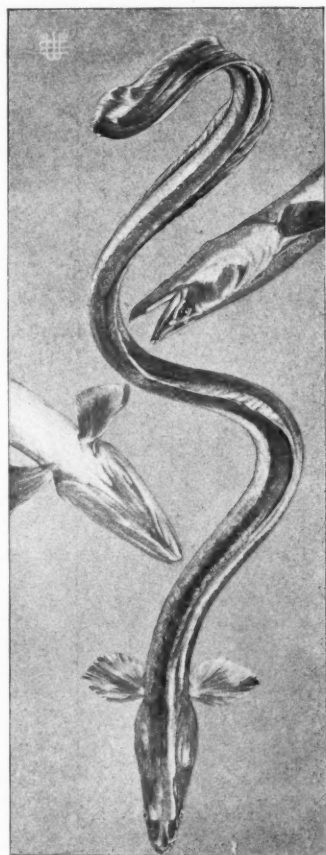
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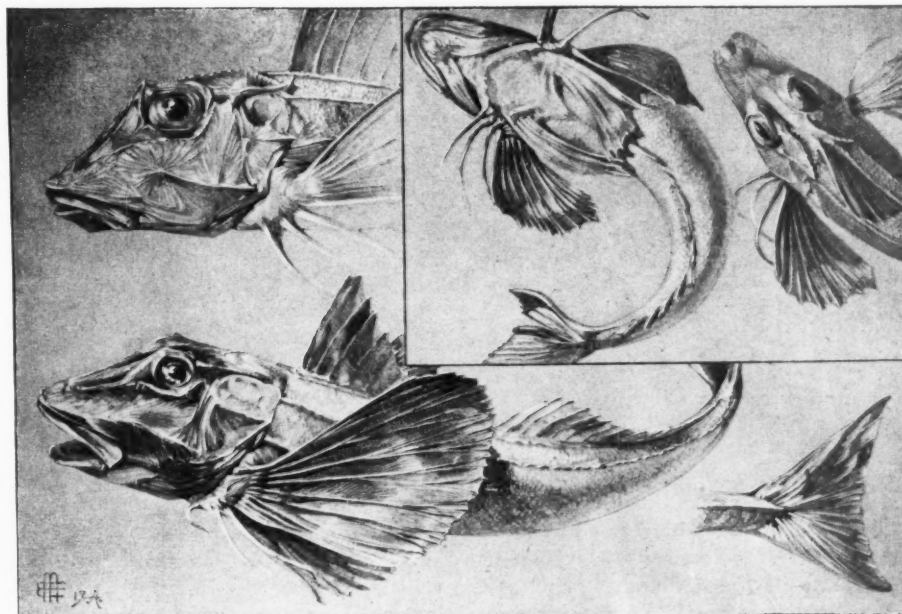
RAYS—M. MEHEUT



PERCH—M. P. VERNEUIL



EELS—M. MEHEUT



GURNETS—M. MEHEUT

HOW TO MAKE COLORED ENAMELS.

THE manufacture of colored enamels for decorating china, porcelain, glass and metal has become quite a flourishing industry in some of the important European glass making countries. Two kinds of enamels are manufactured, the opaque and the transparent, the former being produced from the latter by a simple addition of tin oxide. The oxides in the colored enamels are present in the form of silicates and borates, says the London Pottery Gazette. The melting temperatures of the different colorants vary considerably. It is higher with the real colored glass, which does not melt at less than about 1200 degrees, lower with the enamels for light glazings on porcelains, china or bisque. The melting points of these enamels lie between 850 and 900 degrees. Still lower is the melting temperature of these enamels which are destined for metals and glass painting proper, as they contain usually a very large quantity of lead oxide.

Easily fusible enamels are obtained by melting lead glass together with various metallic oxides, the number of which however is rather limited. Green is produced by copper oxide; manganese oxide alone furnishes violet; mixed with some iron oxide, brown; cobalt oxide is the basis for blue. Antimoniate of potash gives to the copper oxide green a yellow tint, but renders the mass slightly opaque. Black is obtained by mixing red iron oxide and the oxides of cobalt, copper and manganese.

In Salvétat's book we find some recipes for transparent colored enamels which have proved very suitable for ornamenting porcelain bisque. As a base for colored transparent enamels, a glass is used which is composed of 100 parts quartz, 50 borax and 200 red lead.

Ivory colored enamel is obtained by melting together 100 quartz, 50 borax, 200 red lead, 3 antimoniate of potash, 6 hydrated iron oxide and 3 carbonate of zinc.

Yellow enamel: 100 quartz, 50 borax, 20 red lead, 2 chromate of potash.

Violet enamel: 100 quartz, 50 borax, 200 red lead, 12 carbonate of manganese.

Blue enamel: 100 quartz, 50 borax, 200 red lead, 6 cobalt oxide.

Green enamel: 100 quartz, 50 borax, 200 red lead, 10 copper oxide.

Yellow-brown enamel: 100 quartz, 50 borax, 200 red lead, 40 red iron oxide.

Black enamel: 100 quartz, 50 borax, 200 red lead, 1 cobalt oxide, 1 copper oxide, 3 manganese oxide, 2 red iron oxide.

In order to convert the transparent enamels into opaque enamels, there is, according to Steele, a suitable quantity of tin oxide added to the flux. As it is known that the enamels receive a certain degree of opaqueness if the tin contents are one-tenth of the whole weight, all that is needed to render an enamel opaque is to add the corresponding weight of tin oxide. This is best done by mixing the tin oxide with the litharge, so that for producing opaque enamel, 106 parts of this mixture is put into the batch, instead of 100 parts litharge alone, as is done in the case of transparent enamel.

The transparent enamels are used in the painting of glass to put upon white glass at certain places a transparent colored covering. Such colored coverings, however, can also be produced by another method, namely by impregnating. This is done by covering the glass surface with a mass which without forming a molten colored glass layer, colors the glass during burning-in, while the residuum serving as the vehicle, consisting of ferruginous clay or iron oxide, is removed at the end of the process. If both sides of a glass sheet are treated in this manner

it has the appearance as if it were dyed in the batch. This method is chiefly used in the production of yellow by means of silver. This action of the metal on glass was discovered in the fourteenth century, and if today, instead of the metal, chloride of silver or silver oxide be used, it is done only because those substances can better be obtained in finest powder form than metallic silver, and are reduced to metal by the high temperature in the muffle. Silver oxide, however, is to be preferred, as, owing to its easier reductibility, a lower temperature can be employed, and colors lower in metal can be produced, which means a saving in silver.

The chloride of oxide of silver is not applied in its pure condition, but in combination with an indifferent material which, at the high temperature in the muffle, neither shrinks nor sinters, nor adheres to the glass. Such a substance is clay, red chalk, or iron oxide, which, before use, have to be exposed for some length of time to a higher temperature. Assurance is hereby obtained that during the burn-in operation there is no shrinkage or cracking of the layer by which certain places of the glass would be exposed, and hence escape the coloring action of the metal. With one of the indifferent materials chloride of silver is mixed in the proportion of 10 to 15, oxide of silver in that of 1 to 15 or 20. Water is added to this mixture until the proper consistency is reached, when it is applied to the glass in a moderately thin layer. After having dried at an ordinary temperature, the glass is put into the muffle, where it remains until the color is perfectly developed. The residuary mass on the glass is afterwards removed with brush and water.

According to the content of the silver in the mass the glass is more or less strongly colored, but even when producing the deepest, richest yellow, there is generally 95 per cent of silver left, which can again be utilized after having been regenerated into oxide, by means of nitric acid and caustic potash. The coloring given to glass by this method is purely superficial, and the thickness of the yellow layer can hardly be measured, but the process is easily accomplished and the result lasting.



DESIGN OF FISH FROM "ART ET DECORATION"
CARP—M. SEGUY



PERCH—M. P. VERNEUIL



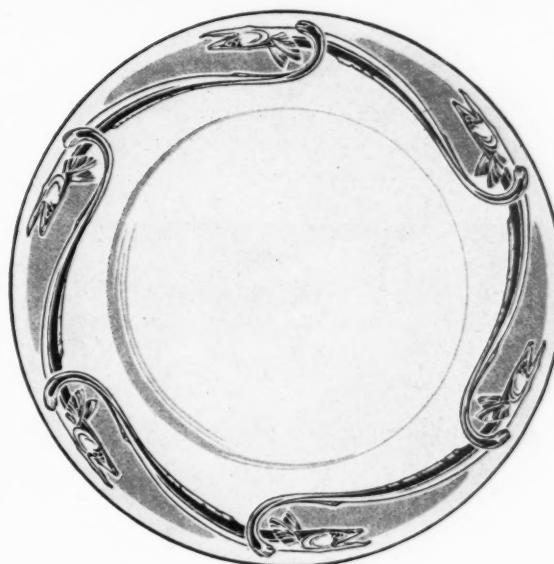
MACKEREL—M. LASSERRE



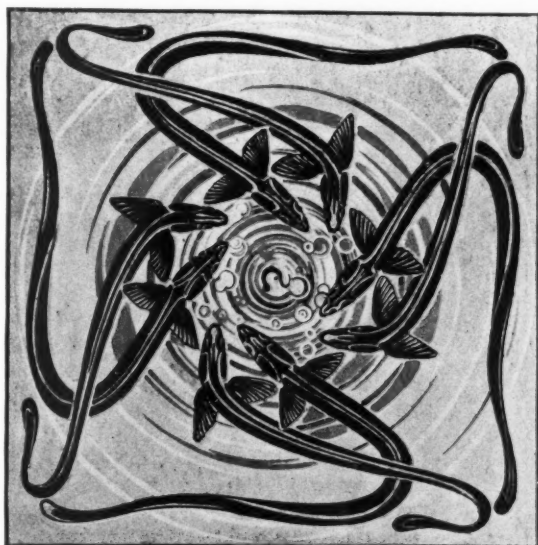
SEA HORSE—M. P. VERNEUIL



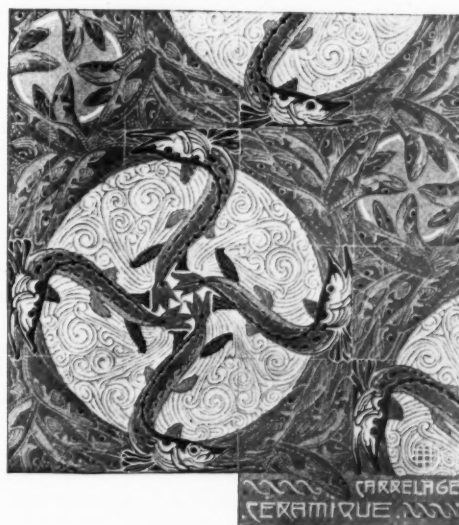
PERCH—M. P. VERNEUIL



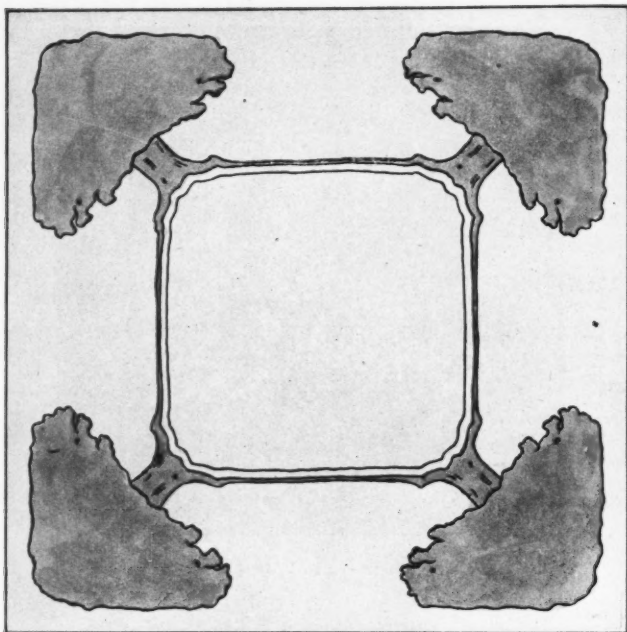
EEL PLATE—M. DUFRENE



EEL TILE—M. DUFRENE



MACKEREL—M. MEHEUT



TEA TILE

Alice Witte Sloan

To be executed in two shades of grey green with dark outlines.



TILE DESIGN—PEACOCK FEATHER MOTIF

Margaret Overbeck

This tile design is to be executed in grey green on a dull buff ground with washes of dull purple, green, blue and yellow in the eyes of the peacock feathers.



NEW YORK EXHIBITION

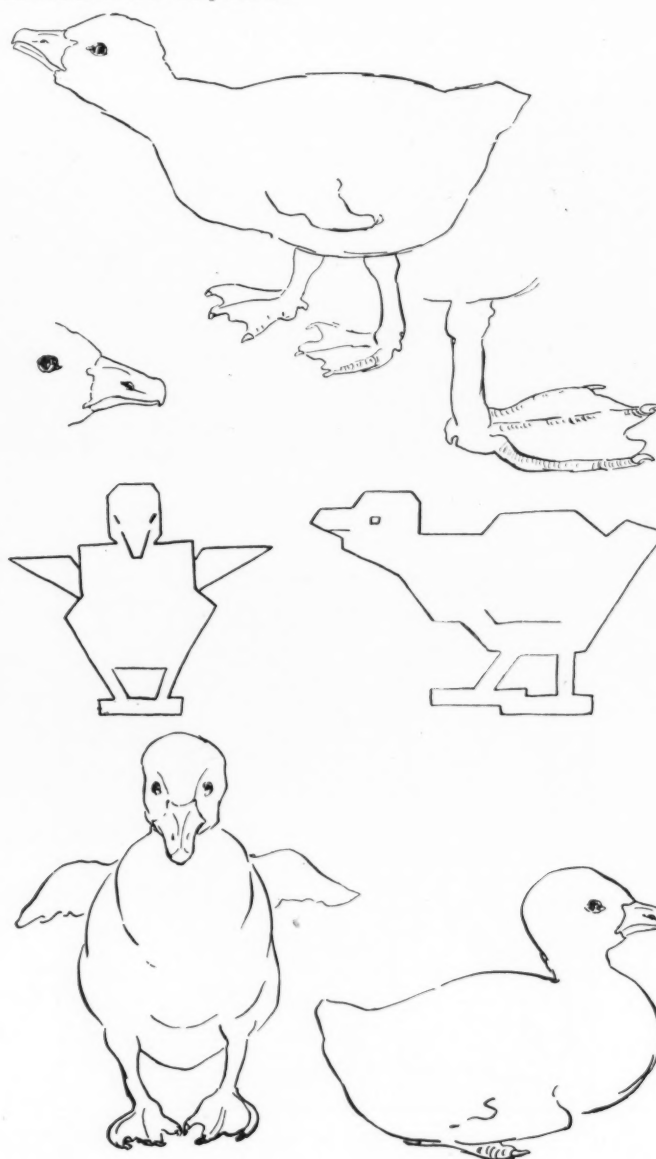
Do not forget that the annual exhibition of the New York Society of Ceramic Arts will be held at the National Arts Club, 39 West 34th Street, New York, from April 19th to May 8th. There will an evening reception on April 24th.



CHILD'S PITCHER

Mary Overbeck

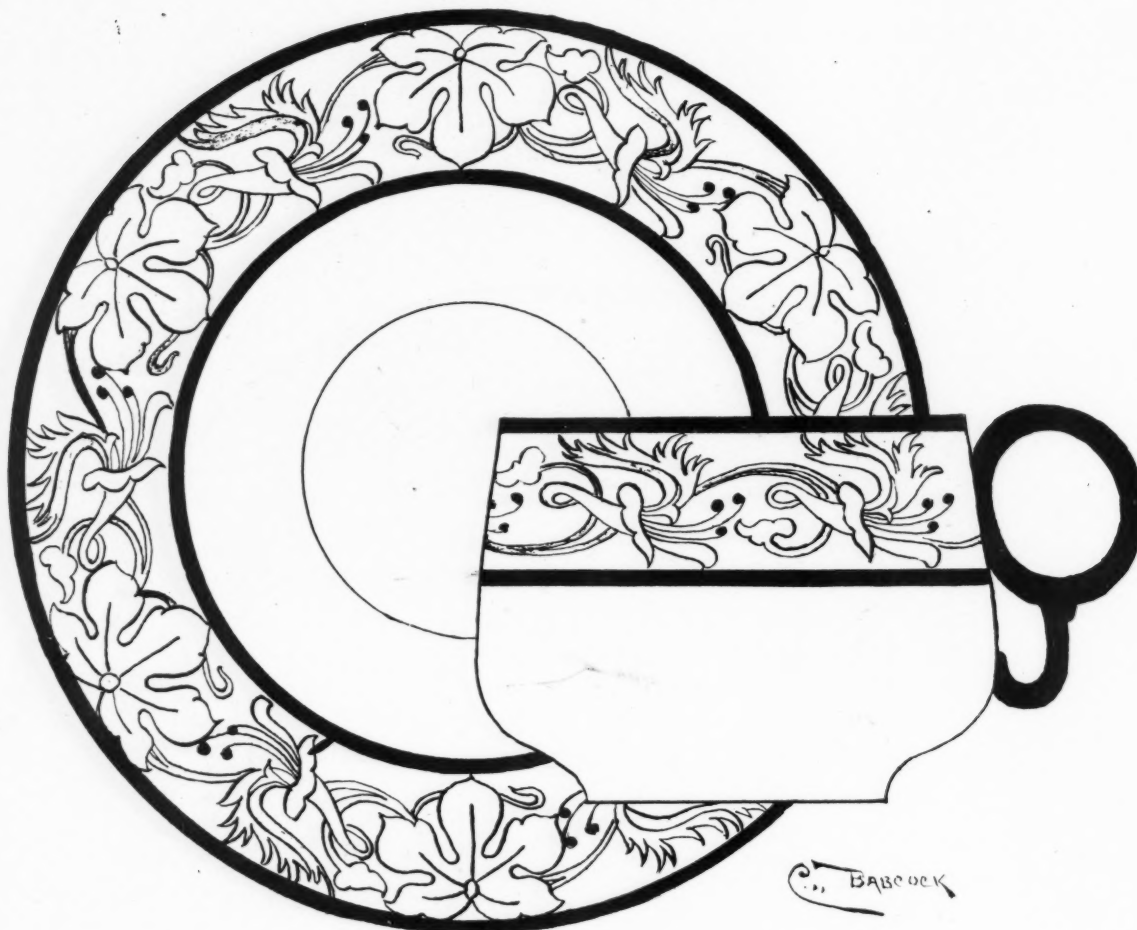
To be executed in gold on a buff ground, outlines in brown and cream tint on pitcher.



GOSLINS—MARY OVERBECK

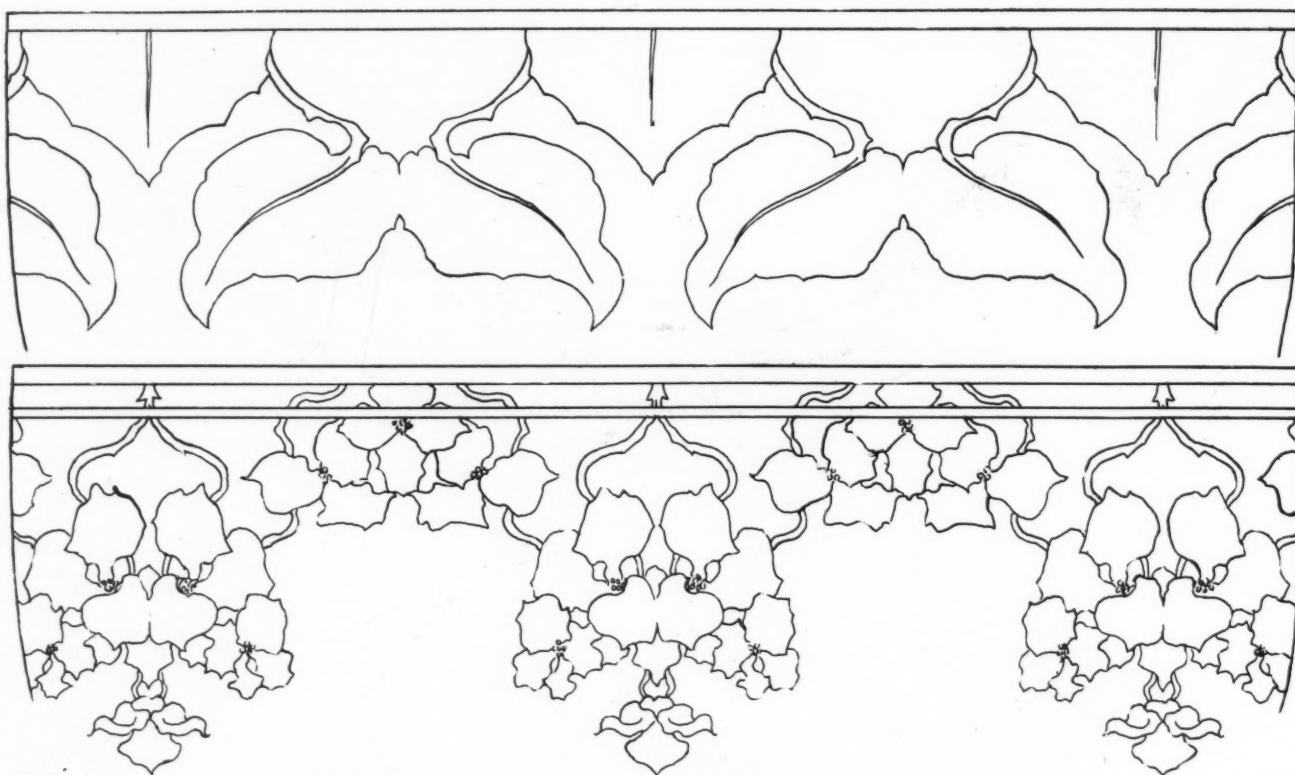


BERRY PLATE—OLIVE SHERMAN

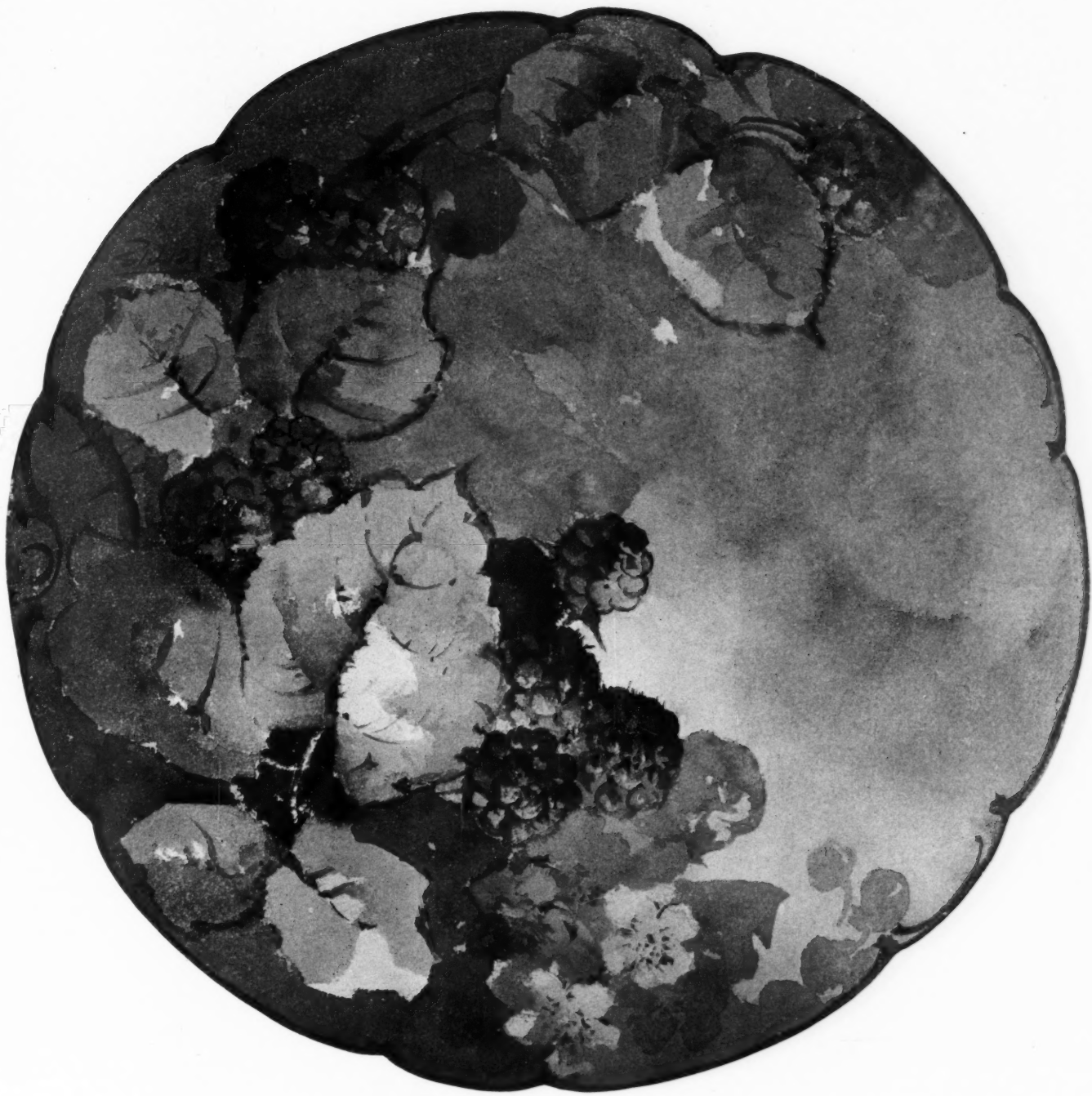


CUP AND SAUCER—C. BABCOCK

To be executed in canary, yellow brown and gold.



HYDRANGEA BORDERS FOR BOWLS—ALICE WITTE SLOAN



BLACKBERRIES—I. M. FERRIS

FOR blackberries use Sèvres Blue, Royal Purple and Black. Make one cluster more prominent than the rest. Paint the main cluster of leaves in Albert Yellow, Yellow Brown, Moss Green and Brown Green; the other leaves may be done in blueish grey tones. Make blossoms shadowy with Grey

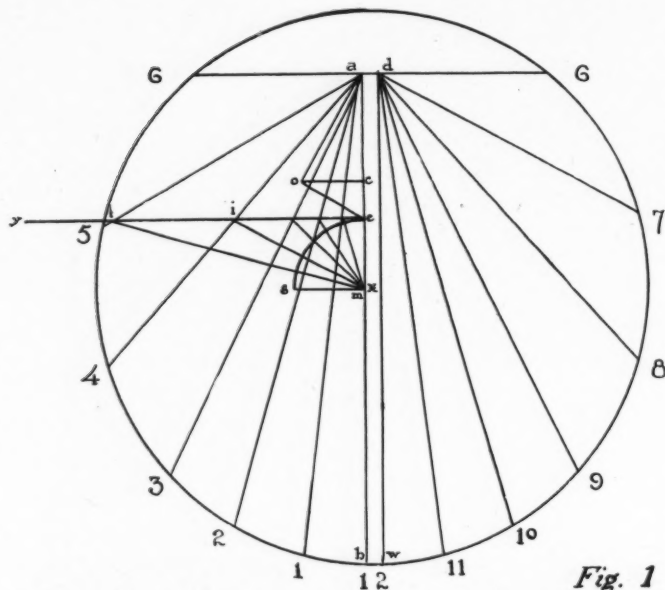
for white roses or Grey Green with a little Yellow in centers. Background lightest tone Albert Yellow near center of plate, the rest of the light part Lavender glaze. Darker places Sèvres Blue, Purple Black with Royal Purple, Royal Green and Dark Green.

THE CRAFTS

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Under the management of Miss Emily Peacock, Karol Shop, 22 East 16th St., New York. All inquiries in regard to the various Crafts are to be sent to the above address, but will be answered in the magazine under this head.

All questions must be received before the 10th day of month preceding issue and will be answered under "Answers to Inquiries" only. Please do not send stamped envelope for reply. The editors will answer questions only in these columns.



The lines "a b" and "d w" on Fig. 1 must point north and south when the Dial is set, "d" and "w" being at the north and "a" and "b" at the south of the gnomon or stile.

Fig. 1

THE MAKING OF A SUN DIAL

Joseph T. Higgins

WITH the renewed interest in antique furniture and formal gardens has come, to many people, the desire to possess one of those strange time-pieces so mysterious to us as children—the quaint old sun dial. To a girl it was only a "funny old thing," but a boy's curiosity always got the better of him and required an answer to the question, "what makes it go?" Fortunate was he who learned, for it revealed new delights in the knowledge of astronomy, which presented so many questions to ask. But most fathers could do no more than explain that the moving shadow pointed out the passing time, with the result that nowadays there are few indeed who know where to buy an accurate dial, to say nothing about how to make one. Many that are sold are made for a given point, though used several degrees of latitude north or south of it, and this is the reason purchasers are surprised that their dials do not agree with the tables given in the almanac.

To secure a useful instrument it is essential to know the latitude of the place where it is to set, and this found one may construct his own, an occupation interesting alike to scientist or craftsman. To the latter in particular it affords a new way to try his workmanship and his knowledge of applied design, for the decoration of a dial may be carried far and a well proportioned pedestal or other support adds much to its charm.

By referring to the figure numbered 1 the method of laying out the hour-lines may be easily followed. There are many varieties which may be fashioned, including the north-, south-, east- and west-vertical and those which recline, incline and decline, but the simplest and most used is the horizontal which is placed with its face parallel to the surface of the earth, and this the figure represents.

Draw "a b", and at right angles to it "6,6". At any convenient point in "a b", and at right angles to it draw

"c o". Make "c a o" equal to the latitude of the place and construct the angle "c o e" equal to the same. Make "e m" equal to "o e" and with "m" as a centre, with the radius "e m", describe the quadrant "e s" and divide it into six equal parts. Draw "e y" parallel to "6,6" and from "m" through the five points in the quadrant draw "m t", "m i", etc. Then from "a" draw "a 5", "a 4", etc., passing through "t", "i", etc. The hour-lines for one half the dial are now complete and to draw the other half make "a d" and "b w" equal to the thickness of the stile and draw "d w" parallel to "a b" and repeat the process already described. It may be a trifle simpler, however, to draw a circle of any radius from any convenient centre, as "x". Space off on this the divisions "6 7", "7 8", etc., exactly equal to those on the opposite half. To divide the hours into quarters, subdivide each of the divisions on the arc "e s" into four equal parts and continue as in constructing the hour lines.

All that now remains to be done is to lay out the gnomon, which is usually a piece of metal similar to figure 2, the angle "b a c" being equal to the latitude of the place.

As accuracy is a necessity and paper shrinks and stretches according to the amount of moisture in the atmosphere, this drawing should be at once traced with India ink on a piece of cloth procured for the purpose.

If the dial is to be of metal, as is usual, order a piece of half-hard brass of the size desired rather than try to have it cast. A casting may be a little cheaper but a good deal of trouble is sure to be found with cold-shuts and other flaws and it will not present so even a texture to engrave.

A plain, old-fashioned sun dial will always be good to look upon because of the regularity of its divisions and the contrast between the straight and curved lines, but it is nevertheless susceptible to decorations, which if not too elaborate will add considerably to its beauty. It is in itself so stiff and formal that conventional designs are the most appropriate to use, and many a plate graced only with the Tudor Rose, or a stiff rosette, possesses far more charm than the over-ornate things that are frequently imported. But the mottoes and decorations on these curious time-pieces do, and should, proclaim their owner's tastes, so select ornamentation and a motto, each according to his own fancy. Only two points are essential:—do not allow anything to interfere with the

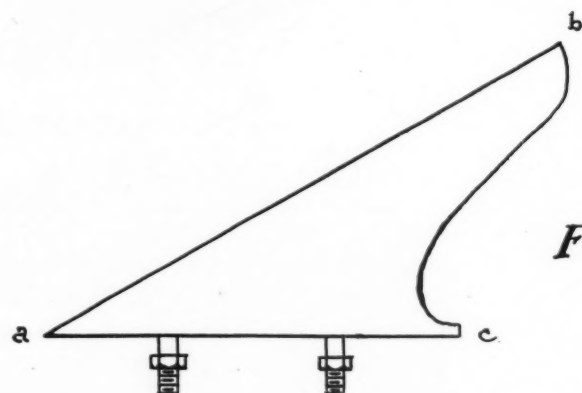


Fig. 2

The point "a" of Fig. 2 should coincide with the line "6,6" at "a d" its sides being on the lines "a b" and "d w"

hour-lines or a clear, distinct shadow from the gnomon; and seek to have the numbers of the hours and the subdivisions of the spaces the most prominent points on the plate.

These things settled, transfer the points on the tracing to the surface of the brass with a well sharpened scratch awl and describe the various circles with a pair of steel dividers. In engraving be careful to get clean, firm lines throughout,



Fig. 3.

and unless well skilled do not attempt any shading. Let each line be deep enough to make a good shadow and so speak for what it represents without affectation. It is better not to fill the lines but let each be distinguished by its shadow so that when darkened by the weather the color of the metal will not conflict with that of the filling.

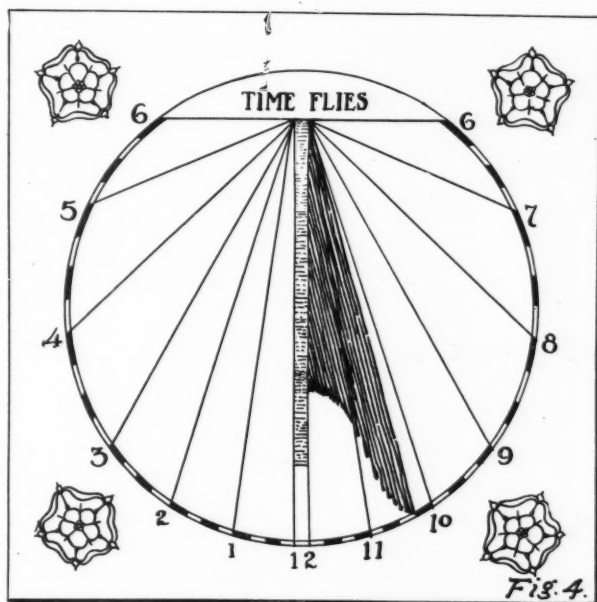


Fig. 4.

All that remains is to shape the gnomon and fix it in place. The ordinary form is similar to that in the figure but sometimes they have the monogram of the owner left solid and the rest of the triangle cut out and sometimes they are filled with scrolls, while others still are engraved on the sides. But plain or fanciful, it is all one if the edges are true and sharp, and it is fixed securely to the dial-plate.

However simple it may be every dial should be inscribed

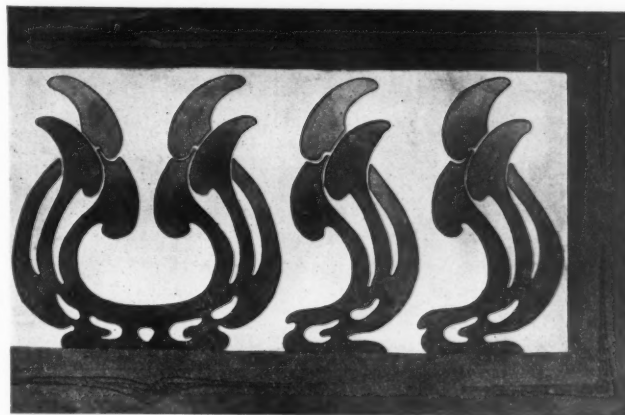
with the latitude and at least the year in which it was made.

Anyone who is unfamiliar with this form of time-keeper has only to glance through "Sun Dials and Roses of Yesterday", written by Mrs. Alice Morse Earle, to become thoroughly imbued with their spirit and a desire to know more of them. This accomplished, recourse may be had to several old books, occasionally to be found in the best libraries, on the once valued art of dialling, which were written by Leybourn, Leadbetter, Fergusson and others as early as the seventeenth century. If these are not available the modern Book of Sun Dials, by Mrs. Alfred Gatty, will be of great interest, and the Encyclopedia Britannica contains a good article on the mathematical part of the work.

Dials have been made of pottery but they are unsatisfactory because great difficulty is likely to be found in retaining any degree of accuracy, and this is the prime requisite of all dials. In fact, if one has a knowledge of spherical trigonometry better results may be obtained in this respect than by following the method here described.

It may be that some will think from this article that the making of a sun dial permits very little individuality on the part of the craftsman, but this is not so, and he who makes a single specimen of this quaint instrument will say with Shakspeare

"Methinks it were a happy life . . .
To carve out dials quaintly point by point."

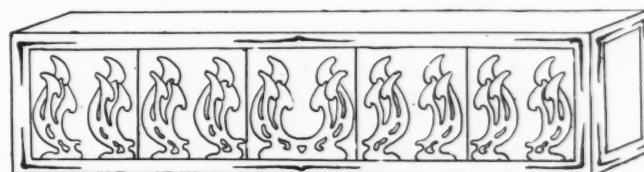


TILED BOX FOR PLANTS

Emily F. Peacock

TREAT the tiles in three or four tones of blue, they will need three fires at least. When the wood frame is made, outline the design with a carving tool and inlay a little blue color in it. The zinc lining should fit well, and the joints be well soldered, so that there will not be any leakage.

MATERIALS—Twelve six inch tiles, five for each side and one for each end; a frame of silver birch and a zinc lining.



COMPLETED TILED BOX
FOR PLANTS.

THE ART OF ENAMELING ON METAL.

Laurin H. Martin

(CONTINUED)

AFTER the enamel has been laid into the design engraved on the silver, great care having been taken to put it in every little point of the design, it is placed on an iron plate (see Fig. 5 in March issue) and very slowly dried, allowing the water that was used in applying the enamel to dry fully out before firing it in the muffle furnace.

It is well to cover the iron plate with a composition of tripoli, sand and plaster of Paris. Enamel will not stick to this. The proportion of this composition is four of tripoli to one of plaster and one of sand. After the enamel is dry and placed on the iron plate it is placed in the muffle furnace. (The Buffalo Dental Mfg. Co. make a very good muffle gas furnace for enameling, see Fig. 6).

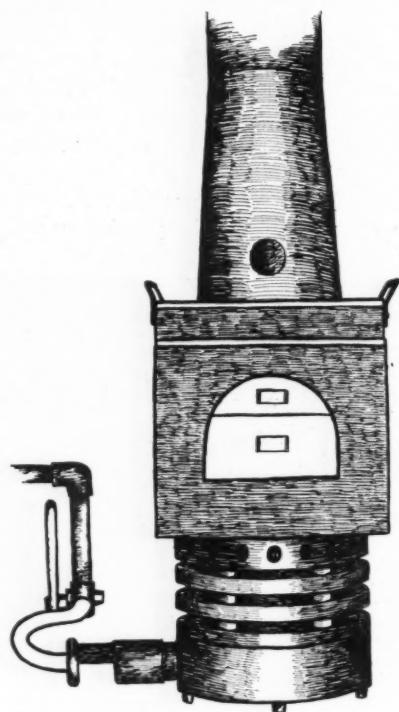


FIG. 6—FURNACE FOR ENAMELING.

The furnace must be quite hot before the enamel is put in. It takes about fifteen minutes from the time the furnace is lighted to get hot enough to fire the enamel. Never go by time in firing enamel for the reason that a large thing takes longer than a small one and some enamels take longer to fire than others. A small dish will take about four minutes. If you are firing a small silver pin and the furnace is quite hot it will fire in a minute. Constantly look at the enamel and see how it is getting on. It will at first look rough, but it will get smoother and smoother until it is done. If you are ever uncertain take the enamel out and look at it, if it is not quite smooth put it back again. I have seen so many failures from overfiring enamel.

If you overfire enamel on silver the silver will melt. Do not hasten the cooling of the enamel after you have taken it out of the furnace, if you do it is apt to crack.

Great care must be taken in every step of enameling. If metal is not well rolled there will be little air cells in it and if there are the enamel will fly. Do not put enamel on too thickly for if you do it is also apt to crack. We have now fired our enamel for the first time and if you desire to add other

colors, as you most always do, place them on with water as before and dry and refire in the same way. Refire a third or fourth time if necessary.



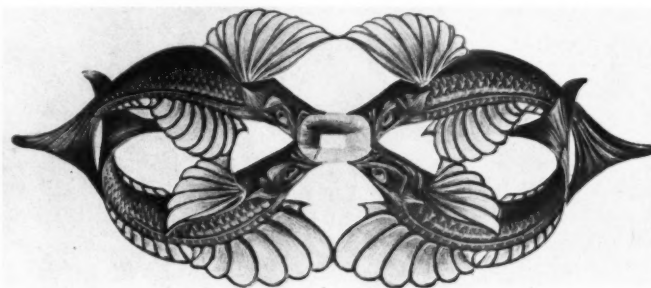
BELT PIN IN CHAMPLEVE ENAMEL.

If you get any enamel on the division lines of metal as one is very apt to do, in fact almost sure to do, you can grind it off by using an Indian stone and plenty of water. After that you can use a fine sandpaper and that will take out the scratches made by the stone. Do not be afraid of hurting the enamel in doing all this. It will scratch the enamel and disfigure it until it is fired again.

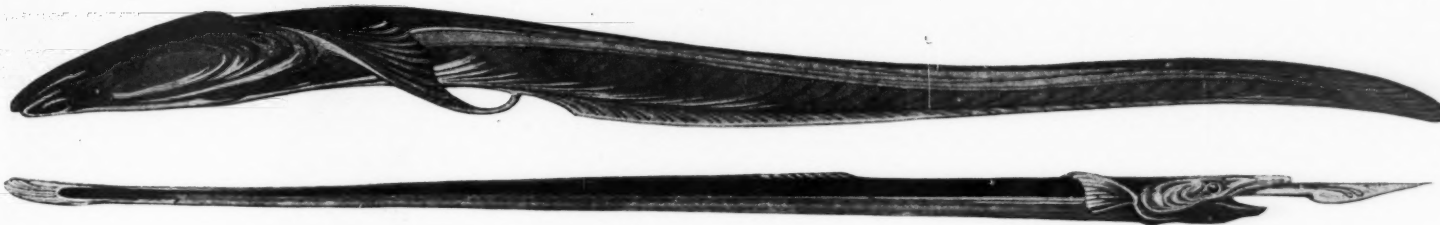
After you have stoned and sandpapered you must wash the enamel very thoroughly and it is a good idea to paint it over with a little hydrofluoric acid. Take great care not to get any of this acid on your hands for it is very painful if you do. Now after the stoning and cleaning you must refire so as to polish the enamel. If you get a color scheme that you do not like you can always etch it out with hydrofluoric acid. The best way to use it is to paint it on and let it stand ten minutes or so and then wash it off with water. By repeating this process you can soon eat all of the enamel away. This acid does not affect the metal in any way.

After firing the enamel for the last time, you still have to clean and put the final finish on the metal. This is done by boiling it in sulphuric acid one-twelfth strength until the silver is white. The silver is then polished. The best way to polish silver or copper or gold is to take a hand buff which is a narrow stick with a piece of felt or leather on it. Rub this leather on a brick of wax tripoli and then rub on the metal. This tripoli will take out scratches on the metal and at the same time does not hurt the enamel. Tripoli makes the metal perfectly smooth but if you desire more of a polish use rouge in just the same way.

I have just described the champlevé process of enamel and will next take the cloisonné process.



BROOCH, PERCH MOTIF—M. P. VERNEUIL FROM "ART ET DECORATION"



PAPER CUTTER AND PEN, EEL MOTIF—M. DUFRENE. FROM "ART ET DECORATION"

ANSWERS TO CORRESPONDENTS.

Carmin and Apple Green make a good shading color for white flowers—for greens use Royal and Moss Greens, Brown Green, Dark Green 7 and Banding Blue.

B. M. F.—If you wish Aufsetzweis to stay raised you should not put flux with it, flux is only used for flat enamel effects.

A. L.—Your request for colors for bouillon cups is rather indefinite, that depends upon the design, and the choice of designs lies with you. KERAMIC STUDIO supplies many cup and saucer designs which should be appropriate, but it is impossible to select for a subscriber not knowing her taste. We should say, select something simple to be carried out in gold with black or red outlines or a design in one or two tones of blue or green, or whatever color you prefer.

A. R.—For black outlining in conventional work, use the powder black, German Black or any black sold for this purpose by our advertisers who are all reliable; mix it with a thin syrup made of sugar and water, if you wish to do your outlining before putting in the lustre, otherwise use just enough fat oil to make it stick well together and thin with spirits of turpentine. Lustre which has thickened up, can be thinned with oil of lavender. Lustre brushes should be washed first in turpentine and then in alcohol and dried by brushing lightly on a cloth before using again, this takes but a minute. Liquid gold comes out of the fire purplish when put on too thin or when turpentine has been used with it. Turpentine should never be used with lustre.

Mrs. J. H. S.—In decorating a piece of china with lustre and raised gold, it is necessary to put on first the lustre and dry it thoroughly, then the raised paste can be put on but it is better if they do not touch as the medium in the paste is liable to run a little into the lustre and cause spots, if the lustre gets into the raised paste it may discolor the gold even if fired first. Roman gold may safely be used either over or under lustre, always firing one first before putting on the other. It should not be necessary to burnish gold which has lustre over it, but if this is done it should be done carefully as the lustre may burnish off somewhat, the only remedy is to go over all the gold with lustre and re-fire. For a dusted black ground several powder blacks are sold by our dealers, write to them—a fine black effect is also gotten by dusting with pompadour red and then with banding blue, this of course takes two fires.



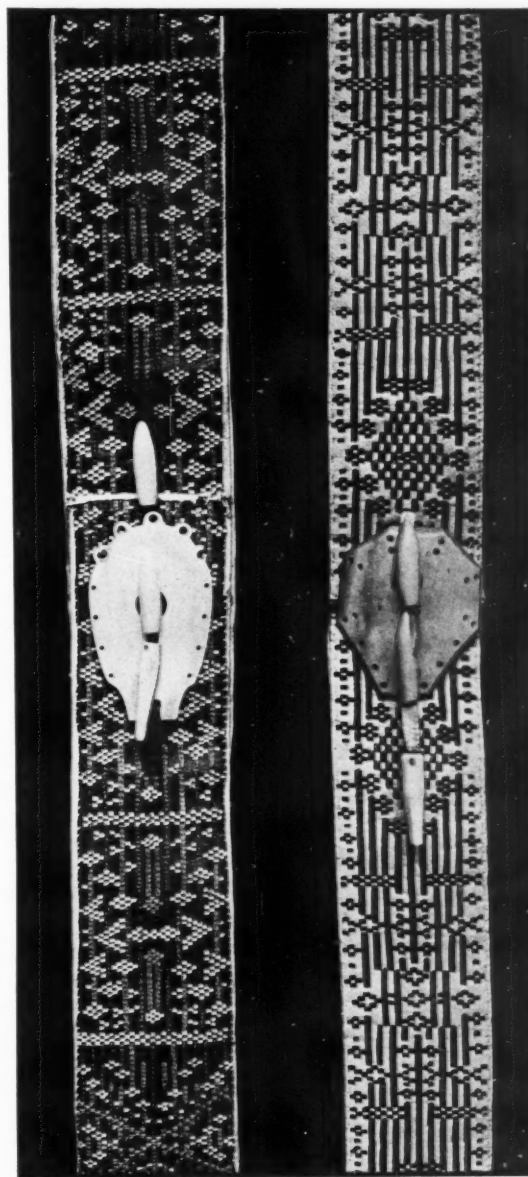
M. DUFRENE—FROM "ART ET DECORATION"

Mrs. B.—You will find a treatment of Poppies in mineral colors by Mrs. Sara Wood-Safford in the January 1904 KERAMIC STUDIO. For Morning Glories use Royal Purple, Violet 1 and 2, Banding Blue, Ruby Purple, Carmine or Rose.

D.—Your vase with the five figure panels of the Senses would not look well with clouding coming up from the vase, the figure panels should be distinctly separated. We should suggest tinting in pale blue if that is the color you prefer, then cleaning out a rectangular or oval panel for each figure and finishing the panel with an outline or simple design in flat gold if raised gold is too difficult for you. An article on raised paste was given in January 1905, K. S. and one on enamel will soon be given. We do not understand why the dots chipped off in your plate while the modelled roses did not, if your paste and everything was exactly the same—chipping is usually due

to too much fat oil,—possibly your paste got a little fat standing if the dots were put on last.

M. P.—Write to our advertisers for game designs to be rented. You will find names of teachers who rent designs on our Teachers' page



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These belts made in Greenland were most unusual and beautiful in color. The foundation was a soft red in one belt and white in the other. Leather, the material for the design, was procured from the intestines of the seal. These are washed, dried and colored, then cut up into infinitesimal pieces and sewed on by hand. The buckles were carved from bone in the most ingenious way, and teeth threaded on a bit of leather were used to fasten.



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